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An Investigation of Innovative Construction Contracting Methods Used by the General Services Administration

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Abstract

An Investigation of Innovative Construction Contracting Methods Used by the General Services Administration

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In the last decade, award fee contracts have gained popularity on operations service contracts within the federal government contracting arena. Recently, award fees have been added to fixed-price construction contracts. The objective of award fees in construction contracts is to positively motivate and reward the contractor to perform beyond the standard which is expected and to emphasize areas of management concern. A study of *Fixed-Price Award Fee* (FPAF) contracts completed by the General Services Administration (GSA) in the Northwest/Arctic Region from 1996 through 2000 was conducted to analyze construction award fee performance and compare them to other fixed-price contracts. The contracts in this study ranged in price from $1.3 million to $13.7 million. Our research found that FPAF cost growth was significantly less than other GSA fixed-price construction and repair contracts during the same period. There were no claims filed on the FPAF contracts over the five-year study period. An analysis was also completed on change order rates, change order types, award fee evaluation procedures and benefits. The results of this study demonstrate that the FPAF contracts have performed well and have enticed Contractors to improve their focus on the owner's core concerns. It also indicates that the use of the evaluated bid form and the performance award fee evaluation provide several advantages to the GSA owner.

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CHAPTER 1: INTRODUCTION

Since World War II, the American strategy for infrastructure procurement has evolved to rely primarily upon a single delivery method, design/bid/build. While this strategy was used to implement massive federal investment in highways, transit systems and wastewater treatment, it has restricted Federal flexibility in aligning the procurement process to achieve best value for publicly funded projects. The engineering procurement and construction community in the United States has now recognized the limitations of a procurement process designed to support a single delivery method. Change has begun and the transition to a new process is challenging public owners in novel, but meaningful, ways.

This report will focus upon construction contracting innovations being implemented by the General Services Administration (GSA) in the Northwest / Arctic Region and their success to date. The discussion and framework of this report will be the result of a variety of research efforts of various sources discussed below. Studies of completed construction contracts, analyses of project studies, personnel interviews and real applications for implementation will provide the underpinnings for the results and conclusions to be presented.

The GSA initiative that the research will primarily focus on is the use of *Award Fees in Fixed-Priced Contracts*. The *Federal Acquisition Regulations (FAR), Part 16.404: Fixed-Priced Contracts with Award Fees*, states that, "Award-fee provisions may be used in fixed-price contracts when the government wishes to motivate a contractor and other

incentives cannot be used because contractor performance cannot be measured objectively." In the last ten years, this type of contract has gained popularity in the public works arena for use with base operations and maintenance contracts. However, it has not been popular on Federal construction projects until just recently with GSA.

GSA is using this initiative to positively motivate and reward their contractors to perform beyond the standard, which is expected of a contractor of demonstrated ability and to emphasize key areas of management concern. The award fee is normally ½ to 3 percent of the owner's original estimate of the project cost and it is in addition to the base bid and other bid options. The contractor may earn this award fee in whole or part during performance. The amount of award fee must be substantial enough to provide motivation for excellence in such areas as quality, timeliness, technical ingenuity and cost-effective management. The amount the contractor earns of the award-fee is determined by the government's evaluation of the contractor's performance in terms of the preset evaluation criteria. The determination as to how much the contractor earns of the award fee is made unilaterally by the government and is not subject to the *Disputes Clause* of the contract.

CHAPTER 2: REVIEW OF EXISTING LITERATURE

Few literary sources of information have been written addressing the use of award fees with fixed price construction contracts. Award fees are quite common in cost-plus contracting, but their use with fixed price contracts have only recently become popular with the General Services Administration in the Northwest. Construction contracts overseen by the GSA must comply with the Federal Acquisitions Regulation (FAR).

GOVERNING FEDERAL ACQUISITION REGULATIONS

The Federal Acquisition Regulations (FAR) was established to promulgate uniform policies for the acquisition of supplies and services by executive agencies and to provide consistency throughout the Federal procurement system. The vision of the Federal Acquisition System is to deliver the best product or service to the customer, while maintaining the public's trust and fulfilling public policy objectives. Participants in the acquisition process work together as a team and are empowered to make decisions within their area of responsibility. The contracting teams of GSA fit this mold.

Contract Types

There are many contract types available to the government to provide flexibility in acquiring the large variety and volume of construction services required by Federal agencies. Contract types vary according to (1) the degree and timing of the responsibility assumed by the contractor for the costs of performance and (2) the amount and nature of the profit incentive offered to the contractor for achieving or exceeding specified standards or goals.

The contract types are grouped into two broad categories: fixed-price contracts and cost-reimbursement contracts. The specific contract types range from fixed-price, in which the contractor has full responsibility for the performance costs and resulting profit (or loss), to cost-plus-fixed-fee, in which the contractor has minimal responsibility for the performance costs and the negotiated fee (profit) is fixed. In between are the various incentive contracts, in which the contractor's responsibility for the performance costs and the profit or fee incentives offered are tailored to the uncertainties involved in contract performance.

Contracts resulting from sealed bidding are firm-fixed-price contracts or fixed-price contracts with economic price adjustment. Selecting the contract type requires the exercise of sound judgment. The objective is to select a contract type and price (or estimated cost and fee) that will result in reasonable contractor risk and provide the contractor with the greatest incentive for efficient and economical performance.

The FAR recommends a firm-fixed-price contract to be used when the risk involved is minimal or can be predicted with an acceptable degree of certainty. However, when a reasonable basis for firm pricing does not exist, other contract types should be considered, and efforts should be directed toward selecting a contract type that will appropriately tie profit to contractor performance.

Other factors that the GSA contracting officer considers when selecting the construction contract type include:

(a) *Price competition*: Normally, effective price competition results in realistic pricing, and a fixed-price contract is ordinarily in the government's interest.

(b) *Price analysis*: Price analysis, with or without competition, may provide a basis for selecting the contract type. The degree to which price analysis can provide a realistic pricing standard should be carefully considered.

(c) *Cost analysis:* In the absence of effective price competition and if price analysis is not sufficient, the cost estimates of the offerer and the government provide the basis for negotiating contract pricing arrangements. It is essential that the uncertainties involved in performance and their possible impact upon costs be identified and evaluated, so that a contract type that places a reasonable degree of cost responsibility upon the contractor can be negotiated.

(d) *Type and complexity of the requirement*: Complex requirements, particularly those unique to the government, usually result in greater risk assumption by the government. This is especially true for complex research and development contracts, when performance uncertainties or the likelihood of changes makes it difficult to estimate performance costs in advance. As a requirement reoccurs or as quantity production begins, the cost risk should shift to the contractor, and a fixed-price contract should be considered.

(e) *Urgency of the requirement*: If urgency is a primary factor, the contracting officer may choose to assume a greater proportion of risk or may offer incentives to ensure timely contract performance.

(f) *Period of performance*: In times of economic uncertainty, contracts extending over a relatively long period may require economic price adjustment terms.

(g) *Contractor's technical capability and financial responsibility*: Only a contractor who has the skills and experience to successfully complete the project should be selected. The contractor should also be financially capable of meeting deadlines and have adequate cash flow to stay on schedule to complete the work.

(h) *Adequacy of the contractor's accounting system*: Before agreeing on a contract type other than firm-fixed-price, the contracting officer should ensure that the contractor's accounting system will permit timely development of all necessary cost data in the form required by the proposed contract type. This factor may be critical when the contract type requires price revision while performance is in progress, or when a cost-reimbursement contract is being considered and all current or past experience with the contractor has been on a fixed-price basis.

(i) *Concurrent contracts*: If performance under the proposed contract involves concurrent operations under other contracts, the impact of those contracts, including their pricing arrangements, should be considered.

(j) *Extent and nature of proposed subcontracting*: If the contractor proposes extensive subcontracting, a contract type reflecting the actual risks to the prime contractor should be selected.

Fixed-Price Contracts

Fixed-price types of contracts provide for a firm cost of construction. Fixed-price contracts providing for an adjustable price may include a ceiling price, a target price (including target cost), or both. Unless otherwise specified in the contract, the ceiling price or target price is subject to adjustment only by operation of contract clauses

providing for equitable adjustment or other revision of the contract price under stated circumstances.

FIXED PRICE AWARD FEES

Award-fee provisions may be used in fixed-price contracts when the government wishes to motivate a contractor and other incentives (such as safety, quality, schedule, budget, teamwork, client satisfaction, etc.) cannot be used because contractor performance cannot be measured objectively. Such contracts should establish a fixed price (including normal profit) for the effort. This price will be paid for satisfactory contract performance. Award fees earned will be paid in addition to that fixed price. These contracts should also provide for periodic evaluation of the contractor's performance against an award-fee plan.

A solicitation contemplating the use of a fixed-price contract with award fee should not be issued unless the following conditions exist:

(a) The administrative costs of conducting award-fee evaluations are not expected to exceed the expected benefits

(b) Procedures have been established for conducting the award-fee evaluation

(c) The award-fee board has been established

(d) An individual above the level of contracting officer approved the fixed-price award fee incentive

Under an FPAF contract, an available award fee pool is set by the contracting officer and included in the contract. However, the actual award fee earned by the contractor is determined by the government based on the contractor's performance. Criteria for contract performance are included in the contract, and the contractor is then judged on how well they perform in relation to those criteria. While the contractor can comment on the government's evaluation, it cannot dispute the score and the resulting fee. The contractor can earn any amount of award fee, from all of the award fee pool to none of it. A contractor will not be paid any award fee or base fee for less than satisfactory overall performance.

The amount of award fee and any base fee available to be earned under an FPAF contract is established at the time of contract award. The sum of the award fee amount and base fee, if any, should reflect the character and difficulty of the contract effort. When evaluated in light of the profit analysis factors in FAR 15.404-4(d), this sum should be sufficient to compensate the contractor for outstanding performance. While fees should not be excessive for the effort contracted for, they must be large enough to adequately motivate contractor performance.

The base fee is a fixed amount that the contractor earns for satisfactory contract performance. The government expects the base fee to be reduced by bidders due to the potential for a greater total fee by the addition of the award fee. A base fee is not included in contracts where each periodic award fee evaluation is independent of other evaluation periods. The use of base fee is available, but strongly discouraged, in

contracts where all evaluations are interim until the last evaluation, such as for study, design or hardware. These contracts may include a base fee in an amount not to exceed 3 percent of estimated contract cost, if base fee is absolutely necessary.

AWARD FEE PROCEDURES AND EVALUATION CRITERIA

Award Fee Performance is normally reviewed and evaluated periodically during the duration of the contract. The frequency should depend on the size and length of the project. Award fee monitors, who are selected by the contracting officer, perform these reviews. The award fee monitors provide the contracting officer with a recommendation for award. The maximum amount of award fee earned in any evaluation period may range from no award fee to the maximum amount for the period. Normally, unearned award fee amounts may be carried over to the following evaluation period.

The contractor, award fee monitors and the contracting officer attend periodic award fee meetings. The award fee monitor's evaluations are openly discussed during these meetings. The contractor also performs a self-assessment of their performance and submits this to both the monitors and contracting officer prior to the meeting. At the meeting, the contractor usually provides an oral briefing to the contracting officer on his efforts over the evaluation period. Again, the award fee determination by the contracting officer is final and is not subject to the "Disputes" clause of the contract. The contracting officer will normally provide a briefing to the contractor after the fee determination has been announced. This briefing provides feedback on areas of strength as well as deficiencies noted during the evaluation period.

Each performance evaluation criteria is assigned a weighting factor. The assigned weighting factor is a measure of the importance of one-performance evaluation criteria relative to another. In addition, the weighting factors may change over the duration of the contract as phases of work are completed. Often, using too many evaluation criteria can be confusing and will increase the administrative burden. Appendix D provides a sample award-fee evaluation checklist.

CHANGE ORDER RATE STUDIES

Federal Government Data

William Schwartzkopf, who authored Calculating Lost Labor Productivity in Construction Claims, analyzed data from the U.S. Army Corps of Engineers (USACE), the Naval Facilities Engineering Command (NAVFAC), the Veterans Administration (VA) and a Census Bureau report of privately owned and local projects from the 1970's through the 1980's. The USACE, NAVFAC, VA and privately owned projects had a change order rate of between 5 and 10 percent. The local government projects showed an average change order rate of only 2 percent, in part because it included many unit price contracts which can cost less that the bid price if a smaller than estimated quantity of work is performed. Schwartzkopf concluded that the normal amount of change on a construction project was from 5 to 10 percent of the contract value and that contractors factor that amount of change into the labor productivity estimates to price their work.

Schwartzkopf compiled the change order rates for different types of privately owned projects, including residential, industrial, office, religious, hospital and institutional. This

study illustrated that the average change order rate varied for each type of project, but the change order rate ranged from 2.2 percent for religious projects to 10 percent for industrial projects. The difference in change order rates reported for the USACE, NAVFAC and VA illustrates that the change order rate can vary for different owners, even if they are the same "type" of owner, such as the federal government.

University of Washington Data

In her Master's thesis, Christine Engan conducted a study of 231 projects, mostly maintenance, remodeling, fire safety and roof repair contracts, conducted by the University of Washington in Seattle between January 1992 and November 1995. This study was to determine the causes of change orders on these publicly funded projects. She concluded that the average change order rate for the 231 projects studied was 15.9 percent. While that is a higher rate than Schwartzkopf reported from the studies he analyzed, Engan's study focused mostly on renovations to existing facilities, which can contain more changes and disruptions than new construction. Table 1 illustrates the change order rates for the construction projects reported above:

Table 1: Average Change Order Rates of Various Public Owners

Owner	Change Order Rate (%)	Source
USACE 1977	8.3%	Schwartzkopf (1995)
NAVFAC 1977	7.1%	Schwartzkopf (1995)
USACE 1980	9.8%	Schwartzkopf (1995)
NAVFAC 1980	11.6%	Schwartzkopf (1995)
USACE 1984	5.8%	Schwartzkopf (1995)
NAVFAC 1984	5.8%	Schwartzkopf (1995)
Univ. of Wash. 1992-1995	15.9%	Engan (1996)

General Services Administration Data

The Office of Inspector General completed a study of 45 *repair and alterations* projects, which were being administered by the General Services Administration in February 2001. The focus of this study was to determine if the Public Building Services (PBS) of GSA has been implementing initiatives to minimize cost growth on Repair and Alteration (R&A) projects. The projects studied were from various regions, including the Northeast & Caribbean, Mid-Atlantic, Southeast-Sunbelt, Great Lakes, Greater Southwest, Pacific Rim and the National Capital Regions. The study sampled 45 projects consisting of the following jobs:

(a) 10 projects that were substantially completed during FY 1998 or 1999

(b) 8 projects that were in construction during FY 2000

(c) 6 projects that began construction in FY 2000

(d) 21 projects that were in the design phase or planned for FY 2001

This study found that the mean change order rate for these *repair and alterations* projects was 37.0 percent. Change orders were further broken down into their specific type as well. This construction data provided similar project statistics to compare research findings against.

CLAIMS

James Adrian in his book Construction Claims: A Quantitative Approach, states that a construction claim can be any of several requests by a construction contractor including,

(a) Compensation above his agreed upon contract agreement

(b) Alleged work the contractor has done outside the initial agreed upon scope of work

(c) Work performed within the scope under conditions the contractor did not expect or contract for in the initial agreement.

In years past, the public construction industry has seen an increasing number of disputes and claims between contractors and owners. These disputes have many causes, including varied interpretations of contract specifications, unpredictable and somewhat uncontrollable project delays and nonperformance of various firms involved in the construction process.

Adrian discusses various reasons for these disputes, including the impact of the economics of construction. He clarifies this by stating that, "...two entities are more likely to have a dispute (i.e., a claim) if the profitability or performance they receive is less than that which they consider desirable." That does not suggest that a construction claim always evolves because of a possible negative or adverse relationship between the owner and the contractor. It does seem however, that the owner or the contractor is more likely to overlook what they consider to be a failure of the other party if they are getting satisfactory performance or profitability.

CHAPTER 3: METHODOLOGY

OVERVIEW

To determine the effectiveness of the use of the Fixed-Price Plus Award-Fee (FPAF) Contract, a localized study of FPAF construction projects in the Northwest United States from 1996 to 2001 was conducted. The Northwest / Arctic Region General Services Administration was contacted to provide a list of contracts completed within the study period. This resulted in a list of five contracts from this region. Access was then given to the archived GSA contract files to gather the data listed below.

COLLECTED FPAF DATA

The data collected (see Appendix B) for each project included:

(a) Project name
(b) Identification number
(c) Type of Contract
(d) Project duration
(e) Original contract amount
(f) Total changes
(g) Final contract amount
(h) Number of change orders
(i) GSA Project manager
(j) Contractor Project manager
(k) General Contractor
(l) Client
(m) Change order by justification code
(n) Number of change orders by justification code
(o) Number of claims

To keep track of modifications to these projects, the changes were categorized into the following types: 1) Award fee, 2) Customer requested, 3) Unforeseen site conditions, 4) Design error & omissions and 5) Administrative. While these categories are not exactly the same as comparison studies, they are similar.

A change order is categorized as *award fee* when a modification to the contract is made which compensates the contractor for exceptional performance according to the requirements of the contract. *Customer requested* changes are any alterations to the project scope initiated by the owner or client. These changes are usually aesthetic in nature such as carpet in lieu of vinyl composition tile flooring. *Unforeseen site conditions* are existing conditions at the project site, usually underground, that are significantly different than those presented in the bid documents. Changes coded under the category of *design errors and omissions* are the result of discrepancies in the plans and specifications. These design flaws are often due to incomplete drawings at bid time or poor coordination between design specialties. *Administrative* changes are due to modifications in Federal agency funding codes or the execution of bid options if contract funds are available. Project data has been coded so that specific projects and people cannot be identified. Comparisons are used only to point out relationships and trends.

COMPARISON FIXED PRICE DATA

In order to evaluate the collected information from the FPAF projects, a comparison data set was required. Fixed-price project change order and claims data was obtained from GSA's Construction Engineering section in Washington DC. The GSA fixed-price contract data collected for comparison included:

(a) Type of contract
(b) Total contract amounts
(c) Total changes
(d) Final contract amount
(e) Change order by justification code

(f) Amount of change orders by justification code
(g) Amount of claims

Historically, construction costs on GSA repair & alteration projects have significantly exceeded the original contract award amount (see Figure 1). Although GSA provides a seven percent contingency for contract modifications, previous PBS studies have found that cost growth on repair and alterations projects averaged 22 percent in 1996 and 21 percent in 1998. These figures did not include claims. These cost growths resulted primarily from customer requested changes, unforeseen conditions, and design deficiencies.

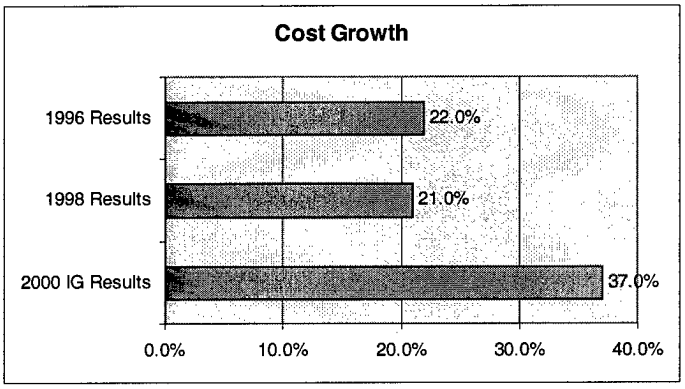

Figure 1: Historical Cost Growth for GSA R&A Projects

PERSONNEL INTERVIEWS

Data was also collected by interviewing project management personnel from GSA as well as the general contractor on the fixed price award-fee projects. Government personnel who were interviewed included the senior contracting officer and all five project managers. The discussed interview questions included:

(a) Do you have GSA Change Order Rates for non-award fee construction projects?
(b) Do you have GSA average late completion rates for non-award fee construction projects?
(c) Are contingency funds set-aside for new construction projects by GSA? If so at what percentage of the government estimate?
(d) Have you used award fees with design-build construction contracts?
(e) Do you know of other GSA regions which are using FPAF on their construction projects? If so where?
(f) What suggested innovations do you suggest I look into?
(g) What suggested performance indicators do you suggest I look into?
(h) What projects do you remember being completed using FPAF in the past? Where are those project files located?
(i) Is the selection of contractors using the evaluated total cost bid form considered a best value selection?
(j) What led you to try using the FPAF contract?
(k) Did you use partnering? Was it effective?
(l) What were the advantages of using FPAF?
(m) What were the disadvantages of using FPAF?

All of the general contractor project managers were interviewed over the phone. There were a total of three contractor project managers. Of the five FPAF contracts, there were two repeat general contractors. These managers provided candid, positive feedback on this contracting method. The discussed interview questions included:

(a) Did you use partnering? Was it effective?
(b) What were the advantages of using FPAF?
(c) What were the disadvantages of using FPAF?
(d) Did the FPAF improve your efforts in safety, quality, schedule, budget/profit & teamwork?
(e) Was the award fee a good use of the tax payers dollars?
(f) Was the use of an award fee a positive from a bidding perspective?

CHAPTER 4: ANALYSIS

Information from all of the completed fixed price award fee contracts which have been completed by the GSA Northwest/Arctic region were collected and reviewed. There were five FPAF projects investigated, which is 100 percent of GSA's FPAF contracts in the last decade. The total construction award value of these projects was $26.2M over the last five years. This represents approximately one-third of their construction volume during this time frame. New construction made up 63.3 percent of the FPAF projects studied. The projects range in size from $1.3M to $13.7M. The mean project size was $5.24M and the median project size was $3.4M (See Figure 2).

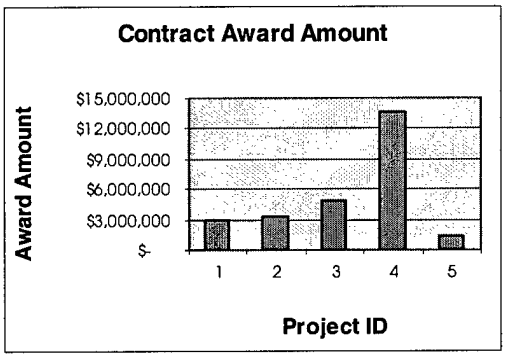

Figure 2: Contract Award Amount

The mean change order rate was 17.9 percent and the median was 12.2 percent as shown in Appendix A and Table 2.

Table 2: FPAF Project Change Order Rates

1	2	3	4	5	Mean	Median
9.1%	12.2%	36.5%	6.2%	25.4%	17.9%	12.2%

Change order rates were determined by using the ratio between the total value of changes and the original contract price. This ratio was expressed as a percentage. If a project was originally awarded for $1M and there was $50K worth of change orders, the change order rate would be 5%. This ratio is a common statistic used in comparing projects of different sizes.

CHANGE ORDER CODES

Changes to a construction contract occur for a variety of reasons. Understanding these reasons and being able to measure between certain types of changes provides one measure of how well an organization is administering the design and construction program. The true measure of successful contract administration cannot be neatly tied up by only the mean change order rate. Researchers must first look at why the changes occurred (unforeseen conditions, customer requested, design error & omissions, etc.) and then make a determination.

Customer Requested Changes

The most frequent change order, which was observed on GSA's fixed price award-fee contracts, was the *customer requested change*. These were generated by a variety of clients for various reasons. It was observed that customer requested changes occurred more frequently on projects in which the award amount was less than the government's original estimated costs. This allowed customers the flexibility to request alterations to finish schedules due to the availability of additional project funds. Customer requested changes accounted for 93 of the 244 total number of change orders as shown in Table 3.

Table 3: FPAF Change Order Rates by Type of Change

CO Types	Totals	Mean	Median
No. CR's	93	18.6	15.0
Cost CR's	$1,917,728	$383,546	$356,037
No. Design	88	17.6	11.0
Cost Design	$912,384	$182,477	$133,348
No. UC's	63	12.6	7.0
Cost UC's	$1,128,947	$225,789	$142,289
Total No. CO's	244	48.8	28.0
Total Cost CO's	$3,959,059	$732,148	$410,692
CO Rate		**17.9%**	**12.2%**

Legend: CR=Customer Requested // Design=Design Error & Omission // UC=Unforeseen Condition // CO=Change Order

Design Error & Omissions

The second most frequent change order observed in our research was *design errors and omissions*. Often due to budget constraints, the architect/engineer's design contract is not adequately scoped to yield a comprehensive set of drawings for the contractor to execute the work. This is neither the designer's fault nor the administrator's, who is often working with a limited budget for his client. Design error changes accounted for 88 of the 244 total number of change orders, as shown in Table 3.

Unforeseen Conditions

Unforeseen conditions accounted for 63 of the noted 244 change orders from the GSA FPAF sample and accounted for 28.5% of the total dollar amount of change order values, as shown in Table 3. A higher frequency of unforeseen conditions change orders were noted on the repair and alterations projects as compared to new construction (see Table 4). This can be attributed to poor as-built drawings often available for older existing facilities as well as the performance of an inadequate site investigation by the designer.

Table 4: Unforeseen Conditions Change Order Rates

Type	No. of Projects	UC COR
R&A	3	9.4%
New Construction	2	1.4%

COMPARING CHANGE ORDER RATES OF FPAF VS. FIXED PRICE

New Construction

The mean change order rate on FPAF projects for new construction was computed at 6.7 percent. This falls within the standard contingency of 5 to 7 percent set aside for fixed price contract change orders within GSA. These findings also agree with the conclusions of Schwartzkopf's studies that the normal amount of change on a construction project was from 5 to 10 percent.

Repair & Alteration

The mean change order rate on FPAF projects for repair & alteration was computed at 26.5 percent as shown in Table 5. When compared against other GSA projects, which used a fixed price contracting method, this was found to be lower than its GSA peers at 37.0 percent.

Table 5: Repair & Alterations Change Order Rate Comparison

Contract Type	CO Totals	Original Contract Amount	COR
FPAF	$2,548,324	$9,616,911	26.50%
Fixed Price	$52,712,199	$142,311,312	37.04%

These numbers on first examination seem rather high. However, further consideration must be given to the specifics of the projects being reviewed. These projects were Federal buildings built in the 1960's or earlier. Most were Federal court facilities, which provided office space for various state judges, Federal judges, law enforcement, and

various other agencies. It was commonplace for project managers to liaison with 10 to 20 clients or tenants for each project.[1] Due to elections and appointments, judicial staffs often changed, which sometimes led to customer requested changes due to differences in tastes and visions.

Another interesting comparison is the breakdown of change orders by type as shown in Table 6. Both FPAF and fixed-price studies yielded very similar customer requested change percentages. However, there was a large disparity between design changes and unforeseen condition changes in the FPAF/fixed-price comparison. The differences can be explained by the viewpoint of the project manager. There is often no clearly defined guidance to differentiate between labeling the change as design related or as an unforeseen condition. A judgment must be made by the contract administrator and often depends on his or her intention to pursue A/E liability.

Table 6: Comparison of Types of Change Orders by Value

Contract Type	No. of Projects	CR	Design	UC
FPAF	5	48.5%	23.0%	28.5%
Fixed Price	10	47.3%	5.3%	42.5%

No clear conclusions were drawn from these observations.

CLAIMS RATE ANALYSIS

During the last two decades, the construction industry has witnessed numerous new practices by which public owners have contracted with their construction provider.

[1] GSA Northwest/Arctic Region: It is not uncommon to have multiple tenants leasing office space from GSA in federal buildings.

GSA's use of the fixed-price award fee contract is only one of these new methods of contract pricing. There have been no claims on GSA Northwest's FPAF contracts (see Appendix A). This compares to a 4.96 percent claims rate for other recent fixed price contracts completed by GSA in 1998 through 1999 (see Table 7 and Appendix C). This is one of the most striking observations of the FPAF research study. Another study conducted by Professor Adrian in the late 1980's revealed public agency claim rates of 18 percent for building construction contracts.

Table 7: Comparison of GSA Claim Rates by Dollar Value Percent

Repair & Alterations	GSA Fixed Price	GSA FPAF
Claims Rate	4.96%	0.0%

The lack of claims reflects well on the FPAF contract and the performance of the project team as a whole. This significant reduction in claims is beneficial to both the owner and the contractor. Claims normally cause a considerable loss in productivity. Without this hindrance and by working together, an owner and contractor can meet contract completion dates.

INTERVIEW ANALYSIS

Verbal interviews were conducted with personnel from GSA's PBS department and the contractors project managers, who oversaw the construction on GSA's FPAF contracts. These interviews yielded several insights into perceived advantages of this contract pricing method over the standard fixed-price system.

Profit Reduction

All contractors stated that their bids reflected a reduction in profit, which they assumed they could recoup by earning the award fee. This reduced the owner's risk for all items being evaluated in the award fee criteria. It also provided a strong motivation for the contractor to strive to excel at award fee evaluation criteria and to please the GSA customer.

Coordination Improvement

All eight of project managers stated that the FPAF contracts provided additional incentive to improve various coordination issues with GSA, the architect, tenants agencies, the construction manager, contractor and subcontractors. Most of these projects dealt with the construction or alteration of Federal buildings. It was not uncommon to have 10 to 20 agencies planning to move into these facilities and many of which were temporarily relocated to allow the renovation of their regular office spaces. The award fee rated the contractor on eleven coordination criteria (see Appendix D). It was noted that the lowest overall award fee earned was 94.1 percent and the highest was 100 percent (see Table 8).

Table 8: FPAF Award Fees Earned

Project Number					
1	**2**	**3**	**4**	**5**	**Mean**
95.0%	98.5%	99.9%	100%	94.1%	97.5%

Relationship Building

Of the contractor project managers interviewed, 2 of 3 stated that the FPAF improved relationships by creating more of a team philosophy. GSA's project managers agreed with this statement. The use of periodic partnering meetings improved communication

and trust between project team members. The coordination of these monthly meetings was an award fee evaluation criterion. They were also forums to discuss challenges on the project site, progress schedules, budget issues and resolve conflicts.

Client Satisfaction

When GSA project managers were asked, "what were the apparent advantages of using FPAF," four of five expressed some form of improved customer or client satisfaction. With improved coordination, the government, contractor and client personnel communicate more effectively.

PARTNERING

Over the last few years, the Northwest / Arctic office of GSA has invited contractors on their FPAF projects to participate informally in partnering meetings. These meetings have led to improved communications, long term business relationships and a conflict resolution process to expedite construction changes.

EVALUATED BID FORM

Another interesting innovation being used by GSA is the use of an *Evaluated Total Cost Bid Form* (See Appendix E). This form allows for the consideration of project costs other than just the base bid or bid options during contract award procedures. In addition to the base bid and bid option quotes, the following costs must also be provided:

(a) Number of days to complete the project: The duration offered by the contractor may be accepted by the government and become the contract duration if the contractor is the successful bidder. The project duration is multiplied by the government's daily

administration rate (such as $1,200/day) to arrive at the evaluated government administrative costs.

(b) Mark-up rates for contract change orders: This rate is to include prime and subcontractor overhead, general and administrative (G&A), bonds and insurance, profit and other fees. The government may use this rate in contract change orders, except for government caused delays. The mark-up rate is multiplied by the government estimated direct costs for future modifications to arrive at the evaluated future change order mark-up costs.

(c) Daily delay rates for government caused delays: This is the daily rate which will be charged to GSA for contractor and subcontractor overhead, G&A, commissions, profits, bonds, and insurance fees which are the result of delay caused by the government. The offered delay rate is multiplied by the estimated days of delay, which the government might cause over the duration of the contract.

Duration

This bid form allows the contractor to propose a maximum duration for the project. If GSA awards to a contractor with a lower proposed duration, accepts that duration and the contractor finishes on time, the Federal owner can rent these facilities sooner and a cost savings will be realized. The contractor also may experience savings if through labor or process efficiencies they can finish in a shorter duration.

Change Order Mark-Up Rates

A contractor's overhead mark-up for change orders is likely to be lower if submitted in a competitive environment. This is beneficial to the owner. It also expedites and

simplifies potential future change orders if the government chooses to accept the contractor's bid mark-up rate.

Delay Rate

The submission of this daily rate provides the owner critical information up front in the unfortunate circumstance of a potential government caused delay. With this information, owners can determine if it is cost effective to delay the contract or make other arrangements in the contract at a later time.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

The study of fixed-price award fee contracts executed from 1996 until 2000 tentatively revealed that the use of performance award fees improved performance in the evaluated criteria areas. Initial research and personnel interviews conducted with nine management personnel revealed trends that reflect favorably on the FPAF contract method. However, conclusions drawn from such a small data set are preliminary and should be used with caution.

PERFORMANCE

The success of the FPAF contract pricing method was most apparent in contractor performance areas, which are periodically evaluated for the award fee. The general contractor focused their efforts to excel in these graded areas. The evaluation criteria had a strong emphasis on improving the coordination of various project activities.

One of the two "Construction Excellence Awards" presented nationally by GSA in 2000 was presented to an FPAF contract from the research sample for its extraordinary problem-solving partnership onsite.[2] This was a repeat contractor who stated during his interview, "the improved coordination, which FPAF emphasized, was a relationship builder." Although this was a general contractor of proven capabilities, the award fee evaluation process heightened their performance.

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[2] Design Architecture (April 2, 2001): *And the Winners Are: GSA Construction & Design Excellence Program 2000*

Interviews with GSA project managers also reflected an improvement in coordination. One contractor project manager stated that, "... the evaluation of our performance made us committed to the way we do business."

Contractors also were found to be reducing their profit margins at bid time and speculating that they would make up their profit by earning most of their award fee. Six of eight project managers as well as the contracting officer agreed with this observation. This reduced governments risk and provided an excellent incentive for the contractor to maximize his performance efforts.

COST GROWTH

The analysis conducted on cost growth found that change order rates are below other fixed-price non-award fee contracts of similar scope and size. However, with only five projects having been completed, there is not enough collected data to conclude that this was due to the use of award fees. The overall FPAF mean change order rate (17.9%), when including both R&A and new construction, was close to the 15.9 percent rate found during the study by Christine Engan on University of Washington Projects.

CLAIMS

The low claims rate is theorized to be a result of the award fee contract. The general contractor was evaluated on his communication & partnering efforts. The process fosters team building and positive relationships. Other non-award fee contracts recently

completed in this study period by GSA's Northwest office of similar size and scope were plagued by large claims.

RECOMMENDATIONS FOR FURTHER RESEARCH

A follow-on study of FPAF projects being administered by GSA would be beneficial to allow for a larger test sample to be analyzed. Presently, GSA has used only five FPAF contracts. Conclusions drawn from such a small data set are speculative and might result in error. Due to the success of this contract pricing method, contracts will continue to be solicited with FPAF. Over the next five years approximately two-thirds of anticipated contracts will use FPAF and a larger sample of contracts will be available for analysis.

In addition, a study on the effectiveness of using not only performance award fees but also constructibility award fees on fixed price contracts would be beneficial. GSA's upcoming use of a constructibility award fee on one of their major projects will be a first in the Northwest region. Its purpose is to motivate the contractor to excel in the solicitation phase-constructibility review and to minimize design deficiency changes and all claims during construction. This fee or award pool will be part of the owner's construction change order contingency and normally runs 1 to 2 percent of the project budget. During the design, the short-listed general contractors complete constructibility reviews during the source selection process. At the completion of the project, the cost of all design deficiency change orders and claims from the contract are deducted from the constructibility award fee. The amount of fee left over is shared between the general contractor, architect/engineer and GSA.

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APPENDIX A: SUMMARY OF FPAF CONTRACT DATA

Description	Project 1	Project 2	Project 3	Project 4	Project 5	Sum Totals
Location	Pt. Roberts, WA	Portland, OR	Richland, WA	Blaine, WA	Tacoma, WA	
Contract	FPAF	FPAF	FPAF	FPAF	FPAF	
Type of Construction	New Work	Rpr & Alt	Rpr & Alt	New Work	Rpr & Alt	
Procurement	SBA 8A Neg	Sealed Bid	Sealed Bid	BV Neg	SBA 8A Neg	
Govt Estimate	$ 3,396,000	$1M -$5M	$ 6,826,631	$10M-$15M	$1M -$5M	
No. CR CO's	2	15	26	45	5	93
Cost of CR CO's	$ 18,767	$ 356,037	$ 925,522	$ 543,596	$ 73,806	$ 1,917,728
No. Design CO's	5	12	56	11	4	88
Cost of Design CO's	$ 174,299	$ 54,035	$ 443,381	$ 133,348	$ 107,321	$ 912,384
No. UC CO's	3	1	37	15	7	63
Cost of UC CO's	$ 60,741	$ 620	$ 756,540	$ 168,757	$ 142,289	$ 1,128,947
Total # of CO's	10	28	119	71	16	244
Add'l Cost of CO's	$ 266,717	$ 410,692	$ 1,814,216	$ 845,701	$ 323,416	$ 3,959,059
CO Rate (%)	9.1%	12.2%	36.5%	6.2%	25.4%	15.1%
No. of Claims	0	0	0	0	0	0
Cost of Claims	$ -	$ -	$ -	$ -	$ -	$ -
Award Fee Possible	$ 175,200	$ 200,000	$ 150,000	$ 300,000	$ 50,000	$ 875,200
Award Fee Paid	$ 166,522	$ 197,000	$ 149,840	$ 300,000	$ 47,035	$ 860,397
Original Proj Duration	300	150	365	810	115	1740
Final Proj Duration	385	161	434	856	72	1908
Delay Rate (%)	28.3%	7.3%	18.9%	5.7%	-37.4%	9.7%
Original Contract Price	$ 2,931,427	$ 3,376,000	$ 4,965,911	$ 13,675,884	$ 1,275,000	$ 26,224,222
Final KT Price	$ 3,364,666	$ 3,983,692	$ 6,929,967	$ 14,821,585	$ 1,598,416	$ 30,698,326

Legend:
CO's - Change Orders
UC - Unforeseen Conditions
CR - Customer Requested
KT - Contract
KN - Construction

APPENDIX B: SUMMARY OF COLLECTED DATA

Project 1-1996 New Construction		Original Contract Price=		$ 2,931,427
Mod No.	Description	Price Adjustment	Time Adjustment	Mod Type
4	Admin mod.	(- $697.42)	0	Admin
6	Admin change	$ -	0	Admin
10	Admin	$ -	0	Admin
15	Exercise Option G	$ -	0	Admin
5	Award fee (94.15% of 58.4K)	$ 54,984	0	AF
8	Award fee (96.9%)	$ 58,230	0	AF
17	Award fee($53,308) + roofing change	$ 66,218	0	AF
9	Add'l paving & utility wk	$ 16,330	0	CR
14	Signs add'l	$ 2,437	0	CR
7	Various corrections	$ 8,452	0	design
11	CCTV, license plate reader, curb realign	$ 76,373	43	design
12	Misc. fixes	$ 28,140	0	design
13	Misc. fixes + op. duress system	$ 30,000	42	design
16	Misc. changes	$ 31,334	0	design
1	Haul & burn debris	$ 25,426	0	UC
2	Change haul & burn	(-$496.58)	0	UC
3	Unsuitable soils	$ 35,315	0	UC
Admin=	(- $697.42)	**design =**	174,299	
AF=	$ 166,522	**UC=**	$ 60,741	
CR=	$ 18,767	**Total Δ=**	$ 433,239	
COR=	9.1%	**Total Δ-AF=**	$ 266,717	

Project 2-1996 Repair Alteration		Original Contract Price=		$ 3,376,000
Mod No.	Description	Price Adjustment	Time Adjustment	Mod Type
1	Exercise Option 1 & 2	$ 304,000	0	Admin
2	Exercise Option 5	$ 152,000	0	Admin
4	Admin mod	$ -	0	Admin
34	Admin mod	$ -	0	Admin
3	Award fee(91.3% of $200K)	$ 60,687	0	AF
26	Award fee	$ 63,617	0	AF
33	Award fee	$ 72,668	0	AF
5	Door sch. change	$ 15,309	0	CR
6	Insulation	$ 3,672	0	CR
10	Stair handrails	$ 5,864	0	CR
11	TV connections	$ 2,937	0	CR
12	Relocate receptacles	$ 5,239	0	CR
16	Basement VAV boxes	$ 259	0	CR
19	TI revisions to 2nd floor	$ 196,933	11	CR
22	Revisions to ADP room 5205	$ 2,618	0	CR
25	Misc changes	$ 969	0	CR
27	Mod to attorney's office	$ 6,883	0	CR
28	Gyb brd, hardware changes	$ 2,023	0	CR
29	Lt fixture, carpet, lock sets	$ 8,846	0	CR
30	Wood veneer for doors	$ 14,762	0	CR
31	Fire doors, tele data outlets, base paint	$ 13,515	0	CR
35	Revise conf. Rm 6211	$ 76,208	0	CR
7	Hardware changes	$ 9,014	0	design
8	Door sch. Change, 5th & 6th floor	$ 1,601	0	design
9	Drinking fountain condensate drain	$ 4,688	0	design
13	Mods to rooms 5207 & 6211	$ 8,209	0	design
14	Curved lobby wall	$ 7,291	0	design
15	Future control wiring for shades	$ 2,788	0	design
18	Add sprinkler heads	$ 654	0	design
20	Carpet revisions	$ 1,020	0	design
21	Clg revisions, AI closure panels	$ 4,756	0	design
23	Add pwr for projection screen	$ 8,299	0	design
24	Raise clg ht rms 5218-6233	$ 1,679	0	design
32	Painting & connect doors to fa	$ 4,036	0	design
17	Relocate thermostat	$ 620	0	UC

Admin=	$ 456,000	**design =**	$ 54,035		
AF=	$ 196,972	**UC=**	$ 620		
CR=	$ 356,037	**Total Δ=**	$ 1,063,664		
COR=	12.2%	**Δ-AF-Admin=**	$ 410,692		

Project 3- 1997 Repair & Alteration		Original Contract Price=		$ 4,965,911
Mod No.	Description	Price Adjustment	Time Adjustment	Mod Type
1	Admin Mod	$ -	0	Admin
7	Definitize PC02	$ (193)	0	Admin
25	Definitize PC10\	$ (2,137)	0	Admin
41	delete bid option "C"	$ (292,850)	0	Admin
42	Admin Mod	$ -	0	Admin
48	Options A & B Exercised	$ (9,745)	0	Admin
54	Admin Definitize PC 36	$ (648)	0	Admin
55	Definitize PC32	$ (4,795)	0	Admin
61	Definitize PC 44	$ (259)	0	Admin
67	Admin	$ -	0	Admin
98	Admin	$ -	0	Admin
132	Definitize PC 111	$ (600)	0	Admin
135	Definitize PC 117	$ -	0	Admin
137	Credit for work not perfect RFP 125	(-7787)	0	Admin
138	Admin	$ -	0	Admin
19	Award Fee (87.29% of $50K)	$ 43,645	0	AF
47	Award Fee (92.16% of $__K)	$ 46,080	0	AF
139	Award fee(98.18% of $50K + 98.57% of $11,185	$ 60,115	0	AF
2	Holding Cell	$ 29,970	0	CR
3	Security Doors	$ 26,776	0	CR
13	Security Door Frame	$ 2,322	0	CR
15	INS Room	$ 3,877	0	CR
16	Corridor Work	$ 1,492	0	CR
18	ADP Build Back	$ 498,289	0	CR
24	Reduce Casework	$ (2,142)	0	CR
33	INS/DOE Mods	$ 4,317	0	CR
43	General Mech, Elect Revision	$ 5,000	0	CR
44	Vehicle Barrier	$ 112,073	0	CR
45	DOE Press Room	$ 20,515	0	CR
46	Add'l Electric Work	$ 9,074	0	CR
52	ADP finish changes	$ 12,067	0	CR
56	Loading Dock	$ 26,324	0	CR
63	INS outlet repairs	$ 796	0	CR
64	Fencing adjustments	$ 3,744	0	CR
65	Court area	$ 5,000	0	CR
70	Pavers	$ 92,212	0	CR
76	Construct USPS storage room	$ 4,878	0	CR
77	Parking gate alts	$ 6,639	0	CR
80	Entry bridge repair	$ 18,630	0	CR
82	Alt Rod Iron Fencing	$ 6,583	0	CR
96	Delete/rework in restrooms 125/126	(-21,768)	0	CR
111	PC USMS security needs	$ 34,414	0	CR
120	Add pavers, door, delete tree	$ 1,246	0	CR
121	Misc. changes PO telephone encl.	$ 1,426	0	CR

4	Remove Brick Vault	$ 3,000	0	design
5	Electrical Revisions	$ 5,000	0	design
8	Misc Changes	$ 5,912	0	design
9	New ductwork, Delete Bid Option 2	$ (2,348)	0	design
10	INS Bldg Misc Changes	$ 33,963	0	design
11	Misc Adds & Deletes	$ (10,877)	0	design
12	Casework	$ 2,286	0	design
17	Add Electric Outlets	$ 1,105	0	design
20	Add Exit Signs & Crosswalk	$ 4,134	0	design
21	Change conductor size	$ 8,445	0	design
22	Add Mech/Electric in AD PRM	$ 5,000	0	design
27	LTG & Electrical Alts	$ 6,330	0	design
28	Lighting	$ 3,881	0	design
34	Value Engr change	$ (6,445)	0	design
37	ADP Ductwork	$ 12,751	0	design
39	Boiler credit + misc adds	$ (8,110)	0	design
49	INS Parking Rehab	$ 1,510	0	design
50	Electrical Value Engr Change	$ (332)	0	design
53	Security toilets	$ 4,083	0	design
57	Misc. Adds	$ 10,797	0	design
59	INS return air fan	$ 4,545	0	design
60	Misc additions	$ 16,403	0	design
62	8" steamline + mech adds	$ 70,660	0	design
66	Restroom door alterations	$ 1,636	0	design
71	Court/USMS Revisions	$ 26,413	0	design
73	Seismic bracing	$ 5,620	0	design
74	Move chiller	$ 2,157	0	design
78	Chiller Pad thickening	$ 24,186	0	design
79	Sallyport Lighting	$ 4,108	0	design
81	add'l bollards	$ 5,556	0	design
85	Relocate Fire Alarm Panel	$ 6,881	0	design
87	Line Reactors for VFD's Unit 13	$ 1,262	0	design
88	Alt stairwell handrails	$ 3,647	0	design
89	Delete boiler retrofits	(-37,963)	0	design
90	Misc Changes	$ 14,439	0	design
92	Add housekeeping pads	$ 2,582	0	design
94	Revise fire pump	$ 4,805	0	design
95	USMS & GNRTR RM changes	$ 3,288	0	design
102	Misc. work in restrooms	$ 3,466	0	design
103	Chilled water makeup alts	$ 1,372	0	design
104	Ramp revisions	$ 3,592	0	design
106	Drinking fountain add/del	(-94)	0	design
107	Add electric baseboard htr	$ 1,561	0	design
108	AHU 13 add dynamic braking	$ 3,371	0	design
109	NW loading dock repairs	$ 3,841	0	design
113	1st floor restroom alts.	(-1043)	0	design
114	Bollards	$ 1,857	0	design
115	Unisex RR work	$ 3,319	0	design

116	Add'l alarm devices	$ 17,927	0	design
118	Add grilles to restroom doors	$ 4,559	0	design
122	Handrails, rampwork, chillers connect	$ 8,114	0	design
124	Chiller emergency venting	$ 6,493	0	design
125	Delete relocating FA panel	(-467)	0	design
130	Boiler #3 piping change	$ 1,721	0	design
134	HVAC balance & clean	$ 3,165	0	design
105	Add 50 mixing boxes	$ 100,750	0	design
6	New Swr Pipe for BR	$ 8,842	0	UC
14	Wall Patching	$ 1,672	0	UC
23	Remove wtr from Bunker "C" tank	$ 7,782	0	UC
29	Add'l Hot water heaters & boiler pipe	$ 51,949	0	UC
30	Laminate gypboard	$ 6,593	0	UC
31	Repair raised floor tiles	$ 5,072	0	UC
32	HVAC Unit 13 Repairs	$ 55,042	0	UC
35	ADP Electrical Changes	$ 12,423	0	UC
36	VFD's for HVAC Unit 13	$ 14,334	0	UC
38	Test & Repair AHU 13	$ 2,657	0	UC
51	Fire alarm repairs	$ 4,261	0	UC
58	Emergency Generator Alts	$ 7,235	0	UC
68	Loading dock excavation	$ 7,761	0	UC
69	Sallyport Excavation Unsuitable soil	$ 10,200	0	UC
72	Replace air separator / Exp tank	$ 15,410	0	UC
75	Weather Protection of EIFS	$ 4,848	0	UC
83	Refrigerant reclamation	$ 1,803	0	UC
84	New chilled water piping	$ 27,204	0	UC
86	Add'l Butterfly valves	$ 3,020	0	UC
91	Mixing Boxes retrofit (46 each)	$ 123,711	0	UC
93	Masonry, conduit, valves, reroute ex. wire	$ 12,839	0	UC
97	VFD & Motors	$ 150,950	48	UC
99	PC99 misc. changes	$ 30,000	0	UC
100	Delete seismic upgrade	(-29,365)	0	UC
101	Add'l concrete repairs	$ 2,777	0	UC
110	Misc. changes to twr & courtroom br	$ 49,403	21	UC
112	Plaster ceiling work	$ 9,389	0	UC
117	PC117 Elevator seismic bracing	$ 58,609	0	UC
119	Signmaking machine, decom fuel tank	$ 10,311	0	UC
123	Definitize PC 99	(-4882)	0	UC
126	Reinstall handrails E&W entry ramps	$ 11,152	0	UC
127	AHU system 13 work & ADP	$ 13,069	0	UC
128	Delete workrms 987, 88, 183; 101-108	(-54,862)	0	UC
129	Recoup VECP loss	$ 12,320	0	UC
131	PVC Drain extensions	$ 1,850	0	UC
133	HVAC unit 13 control wiring	$ 18,395	0	UC
136	Misc. repairs: insulate duct	$ 3,657	0	UC

Admin=	$ (311,227)	**design =**	$ 443,381
AF=	$ 149,840	**UC=**	$ 756,540
CR=	$ 925,522	**Total Δ=**	$ 1,964,056

COR=	36.5%	**Total Δ-AF=**	$ 1,814,216	

Project 4-1998 New Construction		Original Contract Price=		$ 13,675,884
Mod No.	Description	Price Adjustment	Time Adjustment	Mod Type
18	Elevator Service Option	$ 5,881	0	Admin
59	Admin modification	$ -	0	Admin
4	Conduit	$ 5,975	0	CR
9	Partitions	$ 7,014	0	CR
11	Delete some irrigation zones	$ (4,185)	0	CR
12	Ceiling alterations	$ 17,202	0	CR
13	Electrical Changes	$ (8,154)	0	CR
14	Misc. alterations	$ 9,761	0	CR
16	Subgrade Changes	$ 32,507	16	CR
19	Delete computer floor items	$ (330)	18	CR
20	Fire rated Backer boards	$ 896	0	CR
21	Delete employee parking area	$ (11,062)	0	CR
22	Add quarry tile	$ 15,730	0	CR
23	Delete some landscaping	$ (64,089)	0	CR
29	Add waste piping	$ 1,510	0	CR
32	Change roof transition	$ 14,099	0	CR
34	Misc. changes	$ 11,107	0	CR
35	Change power outlet requirements	$ 4,989	0	CR
36	Install door headers	$ 4,839	0	CR
37	Misc. Structural Changes	$ 5,835	0	CR
38	Change yard drainage	$ 6,457	0	CR
39	Additional Painting	$ 6,510	0	CR
40	Add stainless steel tables	$ 9,532	0	CR
41	Add Misc. autobus items	$ 5,568	0	CR
44	Additional Fencing	$ 26,585	0	CR
46	Modify traffic island	$ 7,180	0	CR
47	Changes to comm data room	$ 4,340	0	CR
49	Hazmat Addition	$ 19,536	0	CR
50	Add misc exterior items	$ 7,444	0	CR
51	Add storage units	$ 3,446	0	CR
52	Modify cargo & canopy	$ 36,512	0	CR
53	Landscaping Modification	$ 41,635	0	CR
54	Misc. additions	$ 7,682	0	CR
56	Misc. finish items	$ 10,498	0	CR
57	Misc. items (siren, flooring, paint)	$ 16,950	0	CR
58	Add sprinkler piping	$ 5,570	0	CR
60	Light fixture alterations	$ 9,686	0	CR
61	Additional signage	$ 3,000	0	CR
62	Replace ACR with CI pipe	$ 2,672	0	CR
63	Build HAZMAT facility	$ 220,981	0	CR
64	Add french drain	$ 10,749	0	CR
65	Add stairs to Inspection Booth	$ 14,785	0	CR
66	Add bollards	$ 2,674	0	CR
67	Add pull wires	$ 1,005	0	CR

68	Add exhaust systems	$ 9,843	0	CR
69	Add parking signage	$ 7,631	0	CR
73	Add concrete entrance poles	$ 1,481	0	CR
3	Blockouts	$ 1,620	0	design
6	Fire Dampers	$ 7,063	0	design
7	Thicken slab	$ 1,262	0	design
15	Sheet Metal Work	$ 15,613	0	design
17	Metal Panels	$ 7,071	0	design
25	Change electrical vault covers	$ 17,420	0	design
31	Water proof CMU	$ 4,348	0	design
33	Change EF-1 location	$ 8,017	0	design
42	Demo & replace retaining wall	$ 99,958	0	design
45	Finalize PS 42	$ (34,635)	0	design
48	Lead sampling	$ 5,611	0	design
1	Add'l Fill	$ 16,303	12	UC
2	Retaining Wall	$ 17,701	0	UC
5	HVAC changes	$ 7,197	0	UC
8	Hardware alterations	$ 5,288	0	UC
10	Steel changes	$ 5,217	0	UC
24	Add lead removal	$ 30,325	0	UC
26	Wire the bus entrance area	$ 1,530	0	UC
27	Add decorative slab	$ 22,229	0	UC
28	Add wider truck exit lane	$ 23,269	0	UC
30	Change curbing	$ 1,024	0	UC
43	12th Street retaining wall	$ 3,053	0	UC
55	Repair broken waterline	$ 12,653	0	UC
70	Grading elevation changes	$ 14,471	0	UC
71	Modify ductwork	$ 1,233	0	UC
72	Widen approach lanes	$ 7,264	0	UC

Admin=	$ 5,881	**design =**	$ 133,348		
AF=	$ 300,000	**UC=**	$ 168,757		
CR=	$ 543,596	**Total Δ=**	$ 851,582		
COR=	6.2%	**Total Δ-AF=**	$ 845,701		

Project 5-1999 Repair & Alteration		Original Contract Price=		$ 1,275,000
Mod No.	Description	Price Adjustment	Time Adjustment	Mod Type
2	Admin change	$ -	0	Admin
16	Admin change	$ -	0	Admin
18	Admin change	$ -	0	Admin
8	Award Fee	$ 47,035	0	AF
5	Paint judges chamber	$ 9,900	0	CR
7	Replace window blinds	$ 5,000	0	CR
10	Add'l Interior painting	$ 4,978	0	CR
11	Add'l Louvered Window Blinds	$ 14,565	123	CR
13	Paint Exterior Historic Bldg Arches	$ 39,363	60	CR
1	Wood window frames	$ 33,028	0	design
4	Masonry repairs	$ 58,867	0	design
9	Change window types	$ 4,466	0	design
14	Waterproof Exterior Bldg	$ 10,960	0	design
3	Blind repairs	$ 1,100	0	UC
6	Lead paint removal	$ 67,600	0	UC
12	Water intrusion survey (PDL)	$ 10,000	245	UC
15	Repair water intrusion problems	$ 50,000	0	UC
17	Repair leak in prisoner's tunnel	$ 11,032	0	UC
19	Repair elevator brickwork (PDL)	$ 3,000	0	UC
20	Definitize PO19	$ (443)	0	UC
Admin=	$ -	design =	107,321	
AF=	$ 47,035	UC=	$ 142,289	
CR=	$ 73,806	Total Δ=	$ 370,451	
COR=	25.4%	Total Δ-AF=	$ 323,416	

Legend:
CO's - Change Orders
UC - Unforeseen Conditions
CR - Customer Requested
KT - Contract
KN - Construction

APPENDIX C: SUMMARY OF GSA COMPARISON DATA

GSA Inspector General Audit
Analysis of Change Orders on Non-FPAF R&A Projects Completed FY 98 & 99

TYPE OF PROJECT	INTERIOR RENOVATIONS		ELEVATOR RENOVATIONS		EXTERIOR RENOVATIONS		TOTAL PROJECTS	
Number of Projects Sampled	5		4		1		10	
Total Contract Amount	$ 119,439,862		$ 19,087,650		$ 3,783,800		$ 142,311,312	
Summary by Modification Reasons	**Change Amount**	**% of Total**	**Change Amount**	**% of Total**	**Change Amount**	**% of Total**	**Change Amount**	**% of Total**
Design Deficiency	$ 2,472,918	4.83%	$ 287,131	21.25%	$ 12,933	11.79%	$ 2,772,982	5.26%
Unforeseen Conditions	$ 21,745,200	42.43%	$ 516,917	38.26%	$ 145,962	133.05%	$ 22,408,079	42.51%
Customer Requested Change	$ 17,870,472	34.87%	$ 406,632	30.10%	$ -	0.00%	$ 18,277,104	34.67%
Other	$ 768,619	1.50%	$ 125,809	9.31%	$ -	0.00%	$ 894,428	1.70%
GSA Request	$ 6,526,152	12.73%	$ 14,633	1.08%	$ 108,627	99.02%	$ 6,649,412	12.61%
Value Engineering	$ (13,700)	-0.03%	$ -	0.00%	$ (1,379)	-1.26%	$ (15,079)	-0.03%
Project Acceleration	$ 477,861	0.93%	$ -	0.00%	$ -	0.00%	$ 477,861	0.91%
Time Extension	$ 1,352,302	2.64%	$ -	0.00%	$ -	0.00%	$ 1,352,302	2.57%
Stop Work	$ 75,000	0.15%	$ -	0.00%	$ -	0.00%	$ 75,000	0.14%
Administrative	$ (27,054)	-0.05%	$ -	0.00%	$ -	0.00%	$ (27,054)	-0.05%
Unclassified	$ 3,610	0.01%	$ -	0.00%	$ (156,440)	-142.60%	$ (152,830)	-0.29%
Total Change Order Rates	$ 51,251,374	42.91%	$ 1,351,122	7.08%	$ 109,703	2.90%	$ 52,712,199	**37.04%**
Claims	$ 6,665,471	5.58%	$ 400,000	2.10%	$ -		$ 7,065,471	**4.97%**

Legend:
CO's - Change Orders
UC - Unforeseen Conditions
CR - Customer Requested
KT - Contract
KN - Construction

APPENDIX D: AWARD FEE EVALUATION CRITERIA

FIXED-PRICE-PLUS-AWARD-FEE CONTRACT **

SECTION A- INTRODUCTION

1. Purpose: The Award Fee objective is to positively motivate and reward the contractor to perform beyond the standard which is expected of a contractor of demonstrated ability, and to emphasize key areas of management concern. This plan provides organization, specific policy and procedural guidance by which contract performance is evaluated by Award Fee Monitors, and the Contracting Officer (CO). The collective assessment by these evaluators will be the basis upon which the Award Fee may be given during each evaluation period. Allocation of the Award Fee is a unilateral determination of the CO. That determination is final and is not subject to the "Disputes" clause of the contract.

2. This contract is a fixed-price-plus-award-fee contract, which is a type of fixed-price contract that provides for a fee consisting of:

   (a) A Base Fee to be bid in the base contract. It is expected by the government that the Base Fee will be reduced because of the potential for a greater total fee due to the addition of the Award Fee. The Award Fee will be funded, but not awarded at the time of contract award. However, it will be awarded as a contract modification based on the contractor's performance after 33% progress of Phase 1, 67% progress of Phase 1, 100% progress of Phase 1, 50% progress of Phase 2, 100% progress of Phase 2, and final completion periods. The better the contractor performs, the more Award Fee they will receive.

   (b) A $300,000 Award Fee that the contractor may earn in whole or in part during performance and that is sufficient to provide motivation for excellence in such areas as quality, timeliness, technical ingenuity, and cost-effective management. The amount the contractor earns of the Award Fee is to be determined by the government's judgmental evaluation of the contractor's performance in terms of the criteria. The determination as to how much the contractor earns of the Award Fee is made unilaterally by the government and is not subject to the Disputes clause of this contract. The decision of the government's CONTRACTING OFFICER (CO) is final. In no event shall any Award Fee be earned or paid in excess of the amounts established in this contract.

3. Explanation of Terms:

   a. Award Fee Pool: The amount of Award Fee set forth in the contract, which can be awarded in accordance with plan. The total fee for each contract period will be divided into six (6) allotments representing the maximum amount that can be earned by the contractor during each period.

   b. Award Fee Monitor: A government representative designated to observe, assess, and report the Award Fee performance of the contractor in accordance with the procedures set forth in this plan. May be required to receive, analyze, collate, and report data from other sources. Technical and functional experts will be used such as the Project Engineer, Construction Manager, Architect, Building Manager to be named in writing by the CO after contract award.

   d. Contracting Officer (CO): The CO is responsible for evaluating Award Fee Monitor reports and making the final determination of the award fee. The CO also reviews and may make changes to the Award Fee Plan criteria & assoc. weighting factors, but not to the total Award Fee pool itself.

   e. Criteria: The significant categories or objectives or performance to be rated under this plan.

**Source: GSA Northwest/Arctic Region Office

f. Six (6) Rating Periods: After Phase 1 is 33%, after Phase 1 is 67% complete, after Phase 1 is 100% complete, after Phase 2 is 50% complete, after Phase 2 is 100%, and at Final Completion.

g. Construction Manager: The government representative responsible for coordinating the logistics of and arranging the Award Fee meeting. Duties include contacting the CO, the Award Fee Monitors, and the contractor to inform them of the meeting date, time and place.

SECTION B - EVALUATION PROCEDURES

For the purpose of Award Fee determination, the procedures set forth below will be utilized:

1. General:

   a. Award Fee performance will be reviewed and evaluated six (6) times during the contract. The review and evaluation shall be performed by the Award Fee Monitors and an Award Fee recommended to the CO each period. The periods shall be as previously described.

   b. The amount of award fee earned in any evaluation period may range from no award fee to the maximum amount for the period. The amount of Award Fee available during the first award fee evaluation period will be $50,000 of the total award fee amount. Any unearned award fee amounts from the first evaluation period of the basic contract period will be carried over into the second evaluation period plus $50,000. Any unearned amounts after the second evaluation period will be carried over into the third evaluation period plus $50,000. Any remaining amounts unearned in the third evaluation period **will not** be carried over. The amount of Award Fee available during the fourth award fee evaluation period will be $50,000 of the total award fee amount. Any unearned award fee amounts from the fourth evaluation period of the basic contract period will be carried over into the fifth evaluation period plus $50,000. Any unearned amounts after the fifth evaluation period will be carried over into the sixth evaluation period plus $50,000.

   c. Award fee amount for each evaluation period will be awarded based upon a subjective evaluation of effectiveness of the performance under the contract's terms and conditions. For the initial period, the contractor shall be evaluated on adherence to the approved management plan, and on adherence to timeliness established in the Contract Specifications for such items as submittal of plans, staffing efforts, and construction work.

   d. In the event the Award Fee Monitors do not recommend all the available allocated award fee amount in each area for the period, the amounts remaining shall be available to the CO to be awarded at his discretion for that evaluation period. For example, the CO may award the contractor an award fee greater than that recommended by the Award Fee Monitors based on contractor performance on special interest items, etc. The CO will support the award fee decision in writing to become part of the contract file.

   e. In the event that the contractor's performance is marginal or less than marginal in 50 percent or more of the evaluated performance criteria, the CO, at the CO's discretion, may decide to award less than that recommended by the Award Fee Monitors. Again, the basis for the decision shall be documented in writing for the contract file.

   f. For each evaluation, the contractor, Award Fee Monitors, and CO shall convene on dates and at the time and places established by the CO. Information to be considered shall include, as a minimum, the following:

      (1) Evaluations of Award Fee Monitors.

(2) The contractor's self assessment of performance. Any documentation, including an outline of a briefing supporting the self assessment will be submitted by the contractor to the CO and the Award Fee Monitors prior to the Award Fee meeting.

g. The government reserves the right to consider all elements and aspects of the contractor's performance in relation to the criteria set forth herein in developing its final award fee determination. However, in the evaluation of award fee performance, factors or causes beyond the contractor's control which preclude the contractor from achieving a GOOD or higher award fee performance level will not be considered against the contractor's performance.

h. The government retains the right to unilaterally change the performance criteria and/or assigned weights at any time if it is in the best interest of the government and as work requirements change. The government shall furnish written notification of any substantive changes to the Award Fee Plan such as changes in performance criteria and/or assigned weights to the contractor prior to the first day of the evaluation period in which the new criteria or weights shall be used. At the end of the period, the award fee performance criteria will be reviewed for appropriateness and effectiveness and may be modified after notification by the government to the contractor.

i. Any proposed changes to this Award Fee Plan by any party will be sent in writing to the CO. Changes will not be retroactive unless the CO determines that the change is in the best interest of the government. Retroactive changes may be made to administrative and/or procedural requirements. Substantive changes, such as those referenced in paragraph "h." above, shall not be made retroactive.

j. Nothing in this plan shall excuse the contractor from complying with the terms and conditions of the contract. The CO shall resolve, in writing, any conflict, apparent or actual, between the Award Fee Plan and the contract within seven (7) working days after written notification and discovery by the CO.

2. Fee Determination Process:

a. The contractor will present a written self assessment and oral briefing to the CO and the Award Fee Monitors during the month after they achieve 33% completion of Phase 1, achieve 67% completion of Phase 1, 100% completion of Phase 1, 50% completion of Phase 2, 100% completion of Phase 2, or final completion. The Award Fee Monitors will complete their assessment within one (1) week after the contractor's presentation, and submit it to the CO using the criteria and weights in this Award Fee Plan. The CO shall review the Award Fee Monitors' reports and the contractor's self-assessment. The CO will make the final award fee determination within two (2) weeks after the meeting, and provide an oral briefing to the contractor at that time.

b. The Award Fee Monitors' reports to the CO shall be in writing setting forth, in detail by performance evaluation criteria, their recommended award fee amount for the evaluation period. The reports shall include their reasons for concluding the award fee was or was not earned for each performance evaluation criteria.

c. The CO may accept, modify, or amend the Award Fee Monitors recommendations based on the CO's own judgment. The CO's decision and basis for award fee determination shall be in writing and maintained in the contract file.

d. The CO will transmit the award fee determination by contract modification to the Payment Office for this contract and to the contractor. The contractor may submit a voucher for the entire award fee earned upon receipt of the contract modification. The Payment Office shall pay the entire award fee amount earned upon receipt of a proper invoice and the modification.

e. The award fee determination by the CO will be final and is not subject to the "Disputes" clause of this contract. Notwithstanding the finality of the CO's award fee determination, the contractor will be given an opportunity after the award fee determination is announced to receive a briefing from the government as to the government's award fee determination. The briefing shall be in general terms and its purpose shall be to give the contractor information on continuing or improving performance. The government shall brief the contractor on the strengths and deficiencies noted in performance during the evaluation period which resulted in the award fee determination.

SECTION C - SPECIAL INTEREST ITEMS

1. During the contract, the government anticipates that it may want the contractor to devote special emphasis to subjects of particular interest to the government. The contractor's assistance in these areas would be subject to award fee consideration under the category of Special Interest Items.

2. Special Interest Items shall:

   a. Be presented to the CO for approval..

   b. Only be approved by the CO.

   c. Be controlled by the CO and either added or deleted from the Award Fee Plan by letter signed by the CO.

3. The Special Interest Item shall not cause or result in an increase in the estimated cost of the contract.

4. Reporting requirements for each Special Interest Item shall be specified as part of the item format and shall be directive in nature.

SECTION D - AWARD FEE CALCULATION METHOD PERFORMANCE EVALUATION CRITERIA AND ASSIGNED WEIGHTING FACTORS

1. The performance evaluation criteria, which will be used by the government to determine the amount of award fee earned, are outlined below. No more than 100% of the total award fee can be earned. Each of these criteria is weighted to indicate its relative importance. These weights called weighting factors (WF).

2. The determination of the amount of award fee earned will be as follows:

   a. Each Performance Evaluation Criteria is given an Assigned Weighting Factor. More important Performance Evaluation Criteria are given higher Assigned Weighting Factors. The Assigned Weighting Factor is a measure of the importance of one Performance Evaluation Criteria relative to another. The. Assigned Weighting Factors for this contract are:

Number	Performance Evaluation Criteria	Assigned Weighting Factor 50% PH1	100% PH1	Final
Project Coordination				
1	Coordination Drawings	10	8	1
2	Coordination of Trades	8	12	6
3	Coordination/Partnering Meetings	6	6	4
4	Administrative/Supervisory Personnel	10	10	5
5	Trades/Workmanship Standards	12	12	12
6	Cleaning & Protection	5	5	5
7	Submittals	10	8	1
8	Scheduling	13	13	9
9	Quality Control	10	10	10
10	Safety & Health	5	5	4
Project Close-Out				
11	Substantial Completion	0	0	8
12	Final Acceptance	0	0	7
13	Training	0	0	4
14	Operating Instructions	0	0	4
15	Cleaning	0	0	3
16	Record Documents	0	0	3
17	O & M Manuals	0	0	3
18	Contract Modifications	11	11	11
19	Special Interest Items	Weighting Factors to be determined		
	Totals	100	100	100

3. The CO determines if a Performance Evaluation Criteria represents a task that was active for the performance period. All non-active Performance Evaluation Criteria are assigned a zero value.

4. Points are assigned to each of the Performance Evaluation Criteria according to the ratings on a scale of 0 to 4. Performance requirements for each of the ratings are specifically described for each of the Performance Evaluation Criteria in this Award Fee Plan. The contractor's performance will be evaluated on each performance evaluation criteria using the following scale:

Rating	Points Assigned
Excellent	4
Very Good	3
Good	2
Marginal	1
Less Than Marginal	0

6. The Active Weighting Factor for each Performance Evaluation Criteria is multiplied by the Points assigned divided by the 4 possible points.

7. The Sum of the Active Weighting Factors is determined.

8. The Sum of the results of Step-5 above is determined.

9. The result of Step - 8 is divided by the result of Step - 7. This number is the percentage of the available award fee that will be granted to the contractor.

EXAMPLE:A simplified example of the evaluation procedures along with a reiteration of the above steps follows:

A	*B*	*C*	*D*	*E*	*F*
Performance Evaluation Criteria	*Assigned Weighting Factor*	*Active Task ? (yes / no)*	*Active Weighting Factor Carryover*	*Points Assigned for Task (0 to 4)*	*D x (E ÷ 4)*
1	*10*	*yes*	*10*	*3*	*7.5*
2	*10*	*no*	*0*	*0*	*0*
3	*10*	*yes*	*10*	*3*	*7.5*
4	*20*	*yes*	*20*	*2*	*10*
5	*30*	*no*	*0*	*0*	*0*
6	*20*	*yes*	*20*	*4*	*20*
		Totals:	*60*		*45*

Column-A lists the numerical identification of each Performance Evaluation Criteria.

Column-B shows the Assigned Weighting Factor for each Performance Evaluation Criteria.

Column-C shows that Performance Evaluation Criteria's 1, 3, 4, and 6 were active during the performance period; and that 2 and 5 were not active during the performance period. Assigned Weighting Factors from Column-B for each Performance Evaluation Criteria are carried over to Column-D. Non-active Performance Evaluation Criteria are assigned a zero in Column-D

Column-E shows the Points Assigned for each Performance Evaluation Criteria.

Column-F is the numerical calculation of (Column-D) x (Column-E ÷ 4)

Columns-D and F are summed.

The sum of Column-F is divided by the sum of Column-D. Example: 45/60 = 75%. This number is the percentage of the available Award Fee that will be granted to the contractor

End of Example

**Source: GSA Northwest/Arctic Region Office

AWARD FEE EVALUATION CHECKLIST **

This is a summary checklist. The contractor is rated against the entire specification.

Project Coordination:

1. Coordination Drawings: Contractor provides phasing plans, traffic control plans, shop drawings, coordination drawings, and other submittals in a timely manner to ensure that the work is done right, interference's are kept to a minimum, and the project is ahead of schedule.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

2. Coordination of Trades: Coordinates and inspects the work of the trades (subcontractors) so that interference's are avoided, equipment is installed in a workmanlike manner, and the job progresses without rework being performed.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

3. Coordination with other contractors: Coordinates and cooperate with other contractors so that the job progresses smoothly without rework being performed.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

4. Coordination/Partnering Meetings: This project is "partnered" by the government, Architect, Construction Manager, Tenants, Contractor, and subcontractors. These meetings are an opportunity for all parties to ensure that it will be a highly successful project. Therefore, it is extremely important for the attendees to come with a positive attitude, reaffirming the efforts that have helped the job while also asking questions as appropriate. The contractor and appropriate subcontractors come to these meetings fully prepared to explain the status (schedule, quality, budget) of the project, answer pertinent questions, and prepared to work as a productive, proactive team member to ensure the success of the job.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

5. Administrative/Supervisory Personnel: It is imperative that the contractor and it's subcontractors provide the best, qualified people available to manage, supervise, and administer the work. The contractor provides (and the government will approve) only self-motivated, experienced, team-oriented personnel whose goal is to accomplish a highly successful project.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

6. Tradespersons and Workmanship Standards: The contractor ensures that persons performing work are skilled and knowledgeable in methods and craftsmanship to do high quality work. Omissions and Defects (O & D) shall be kept to a minimum.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

7. Cleaning and Protection: The contractor frequently cleans and protects the work in progress and adjoining work. The contractor ensures that none of the work, complete or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposures during the construction period.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

8. Submittals: The contractor provides a schedule of submissions for approval by the CO within 14 calendar days after notice to proceed is received. The schedule of submissions are to be incorporated into the project CPM schedule. The contractor provides submittals to the government to ensure that the approved schedule is maintained. All shop drawings are coordinated, and provided in a complete manner. The contractor is responsible for dimensions to be confirmed and correlated at the job site.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

9. Schedules: Provide timely schedules in accordance with the contract. Ensure that all work is performed in a timely manner, and any potential delays are identified immediately. Discuss potential delays with the subcontractors, Construction Manager, Project Engineer, and CO. Develop work-around plans to expedite the job and get the project back on schedule. All changes are immediately incorporated into the schedule to enable all parties to evaluate their impact. Provide monthly schedule updates at the Teamwork Meetings, and a Look Ahead schedule at each weekly Project Meeting to keep all parties informed of the current and planned construction. Thirty days prior to the estimated substantial completion the contractor will provide a detailed Close-Out schedule of all activities to be completed including instructions, O & M, testing, training inspection, clean-up, etc. Contractor must be proactive in keeping the project on or ahead of schedule.

   Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

10. Quality Control: Provides inspection and testing services to verify compliance with requirements specified or indicated. Omissions and Defects (O's & D's) are kept to a minimum and corrected promptly: Contractor is proactive in the identification and correction of unacceptable or non-compliant work. The quality of work meets or exceeds contract requirements.

    Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

11. Safety and Health: The contractor meets with the government representatives prior to the start of work to review the contractor's safety and health programs pertinent to the work performed under the contract. All work complies with the applicable federal, state, and municipal safety and health requirements. The contractor assumes full responsibility and liability for compliance with applicable regulations pertaining to the health and safety of personnel, and shall hold the government harmless for any action on their part, their employees or subcontractors, which results in illness, injury or death. The contractor takes all necessary precautions to prevent injury to the public, building occupants, or damage to property of others. The contractor has a proactive safety program whose success is measured in job attitude, safety programs, physical compliance, and frequency of accidents.

    Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

Project Close-Out:

12. Substantial Completion: The contractor completes the following, and list known exceptions, prior to requesting inspection for certification of substantial completion:

    1. Contractor generated punchlist.
    2. Complete start-up testing of systems, and instructions to government's operating/maintenance personnel.
    3. Progress payment request items.

    Upon receipt of the contractor's request, the CO will either proceed with inspection or advise the contractor of prerequisites not fulfilled. Following initial inspection, the CO will note substantial completion, or advise the contractor of work, which must be performed and repeat inspection when requested and assured that it is complete. Results of completed inspection form initial "punch-list" for final acceptance.

    Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

13. Final Acceptance: Prior to requesting final inspection for certification of final acceptance and final payment, complete the following and list known exceptions (if any) in the request:

    1. Final payment with releases and supporting documentation.
    2. Final punch-list stating that each item has been completed or otherwise resolved for acceptance.
    3. Specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.
    4. As-built drawings, property survey, and other final documentation.
    5. Deliver tools, spare parts, extra stocks of materials, and similar physical items to the government.
    6. Final change-over of locks and transmit keys to the CO and advise government personnel of change-over in security provisions.
    7. Final project clean-up, including touch-up painting of marred surfaces.
    8. Touch-up and otherwise repair and restore marred exposed finishes.

    Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

14. Training: Furnish instructions to maintenance personnel as specified in other sections, without additional expense to the government, the services of competent instructors, who will full instruction in systems and equipment to maintenance personnel. Utilize maintenance manual for the system or equipment as a text for instruction. Upon completion, obtain written acknowledgment from the CO that required instruction was completed.

    Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

15. Final Cleaning: Comply with manufacturer's instructions for cleaning operation. Except as otherwise indicated by the CO, remove temporary protection devices and facilities.

    Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

16. Record Documents: As work progresses, prepare and maintain record documents as specified. Each record is certified by the contractor and the Construction Engineer. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistant location accessible to the CO for reference during normal working hours. Upon completion, turn record documents over to the CO including record drawings, specifications, shop drawing, product data, certifications and laboratory test reports, sample submittal, survey of outside utility lines, and miscellaneous record submittals.

Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

17. O & M Manuals: Provides operation and maintenance manuals for each mechanical and electrical system, for each piece of equipment, and for other systems and components specified in the technical sections of the specification.

Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

Other Items:

18. Request for Information (RFI): The contractor is proactively planning ahead and appropriately using the RFI process to promote communication and develop solutions that are best for the project. The contractor quickly develops rough order of magnitude cost and schedule implications and teamworks with the government to eliminate or minimize impacts to the project.

Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

19. Request for Proposals (RFP) and Contract Modifications: The contractor is timely, complete, and reasonable in their pricing, negotiation, schedule analysis, and incorporation of contract modifications and schedule fragnets into the contract. Proposal include detailed subcontractor breakdowns. The contractor is proactively investigating "better" ways of accomplishing the intention of the RFP.

Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

20. Dispute Resolution: The contractor actively seeks ways to minimize and eliminate disputes and impacts. The contractor develops "win-win" situations between subcontractors and other parties. Open and honest presentation of information to the government in a timely manner to allow the government the opportunity to assist in determining the best solution for the project.

Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

21. Special Interest Items:

Weight: _____ Points: _____ (0 to 4) Weighted Score: _____

**Source: GSA Northwest/Arctic Region Office

APPENDIX E: EVALUATED BID FORM

EVALUATED TOTAL COST BID FORM **

1. **BASE BID** (Provide lump sum base bid): _____

2. **AWARD FEE** (Fixed amount to be administered by GSA) **$300,000.00**

3. **OPTIONS** (See Section 01030. May be awarded if funds are available):

   a. **Add Screen at Auto/Bus Building during Phase II** (Lump sum) _____

   b. **Add Mezzanine during Phase I** (lump sum) _____

   c. **Finishes at Rooms A105 and A111** (Lump sum) _____

   d. **Revised Guardrail Detail during Phase I** (lump sum) _____

   e. **Secondary Canopy during Phase II** (lump sum) _____

   f. **Add Landscaping during all Phases** (lump sum) _____

   g. **Elevator Maintenance Service**
   (Total evaluated bid price, see attached option 2g) _____

   ITEM 3 OPTIONS TOTAL _____
   (Item 2 =3a + 3b + 3c +3d+3e+3f+3g)

4. **EVALUATED GOVERNMENT ADMINISTRATION COSTS:**

_____calendar days	X	$1,200/day =	_____
Contract Duration Offered		Est. Gov't. Daily Rate	Eval Govt Admin Costs

5. **EVALUATED FUTURE MODIFICATIONS MARK-UP COSTS:**

_____	X	$700,000 =	_____
Contractor Mark-up Rate Offered		Est. Future Mods Direct Costs	Eval Future Mod Mark-up Costs

6. **EVALUATED DELAY COSTS:**

_____	X	60 Days =	_____
Contractor Daily Rate Offered		Est. Delay	Evaluated Delay Cost

7. **EVALUATED TOTAL BID PRICE**: _____
(Items 1+2+3+4+5+6)

**Source: GSA Northwest/Arctic Region Office

INSTRUCTIONS TO COMPLETE EVALUATED TOTAL COST BID FORM SUPPLEMENT TO STANDARD FORM 1442-BID SHEET

1. **Base Bid:** Provide lump sum base bid price for all solicitation requirements except options & award fee.

2. **Award Fee:** The award fee for this project is $300,000. This will be administered in accordance with the Award Fee Clause. It is expected that the offerors will provide a reduced fee in their base bid as a result of this award fee.

3. **Options:** Provide lump sum bid price for options 3a, 3b, 3c, 3d, 3e, 3f and 3g. Total Evaluated Bid Price for Elevator Maintenance Service shall be bid as option 3g. The options shall be awarded if funds are available. See Section 01030 for further information.

4. **Evaluated Government Administration Costs:** Offer the number of days that it will take you to complete the contract from 810 to 900 calendar days, inclusive (Elevator Maintenance is not included in this duration). The government look-up table duration is 900 calendar days. The duration offered by the contractor may be accepted by the government and become the contract duration if you are awarded the contract. It is multiplied by the estimated government daily administration rate of $1,200/day to arrive at the evaluated government administration costs.

NOTE: Failure to offer a contract duration within the range specified above shall result in the bid being deemed non-responsive.

5. **Evaluated Future Modifications Mark-Up Costs:** Offer your mark-up rate to include contractor and all subcontractors overhead, general and administrative , bonds, insurance, all other indirect costs and commission, profit, and other fees. The rate offered by the contractor may be accepted by the government and used in contract modifications, except for government caused delays. (For government caused delays see paragraph 5 below.) The rate is multiplied by the government estimated direct costs for future modifications to arrive at the evaluated future modification mark-up costs.

Construction Clause #86 (a) (2), GSAR 552.243-71, Equitable Adjustments (Apr 1984), GSA Form 3506, is amended to delete that part of the clause which provides that the contractor and subcontractors overhead, profit, and commission rates will be negotiated after award. As noted, you must bid the contractor and subcontractors mark-up rate that may be used for future contract modifications. The government and the contractor will negotiate prime and subcontractor direct costs, and then apply the mark-up rate to these direct costs to establish a price for each future contract modification.

6. **Evaluated Delay Costs:** Offer your delay daily rate to include contractor and subcontractor field overhead, overhead, general and administrative costs, commissions, profits, bonds, and insurance fees which are the result of delays caused by the government. The rate offered may be accepted by the government and used to negotiate government caused delays (excluding delays associated with Suspension of Work) if the contractor can show that the delay caused them to have increased costs. The offered daily rate is multiplied by the government estimated delay to arrive at the evaluated delay costs.

7. **Total Bid Price: The total bid price is the sum of items 1, 2, 3, 4, 5 and 6. It is the basis for establishing the price to be used in the best value method of award in accordance with the Source Selection Proposal Instructions.**

8. **Contract Award Amount: The contract award amount accepted by the government will be either the Base Bid (Item 1) and the Award Fee (item 2), or items 1and 2 plus any options (Items 3a, 3b, 3c, 3d, 3e, 3f and 3g) for which funds are available. The contractor offered contract duration (item 4), contractor mark-up rate (item 5), and contractor daily rate (item 6) may be accepted by the government, and also become part of the contract award.**